Oceanographic Data for the Pacific Northwest Coast from Washington to Northern California: Results from an Undergraduate Research Cruise

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Abstract

Oceanographic data for the Pacific Northwest coast from Washington to Northern California is important for understanding the physical, chemical, and biological factors affecting local fisheries and for constructing models for effective fisheries management. However, current comprehensive large-scale alongshore oceanographic data for the Pacific Northwest coast is minimal. Therefore, regular continuous sampling cruises along this coast would add greatly to the knowledge of local ocean conditions and aid in decision-making for addressing fisheries concerns. In the summer of 2002, as part of an undergraduate course offered by the University of Washington, Tacoma, in an educational partnership with the Sea Education Association of Woods Hole, Massachusetts, physical, chemical, and biological data were collected along a cruise track from the Puget Sound to San Francisco Bay aboard the *SSV Robert C. Seamans*. Continuous surface data were collected using a flow-through system, while current magnitude and direction were measured by ADCP. In addition, CTD casts were conducted at various locations along the cruise track, and nutrient, chlorophyll-a, and oxygen concentration were measured. The data collected shows: (1) evidence of upwelling along the Northern California coast; (2) the signature of the Columbia River plume; and (3) the location of the California Current. Results from this cruise will be compared to historical data.